Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at http://about.jstor.org/participate-jstor/individuals/early-journal-content.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

therefore belief and baptism were the first and great preliminaries for salvation: this language, we repeat, is now used by the teachers we allude to, when addressing Christian congregations, exactly as if the protestant inhabitants of Great Britain and Ireland were still unconverted pagans. It is strange, indeed, to hear these men exhorting their congregations with so much superfluous earnestness to believe in the Lord Jesus Christ, and they shall be saved, just as if we were still in the very same condition as the Macedonian gaoler to whom that exhortation was primarily addressed. It is flat heresy to hold that we shall be saved for anything we believe; the sole and whole reason why any man shall or can be saved, is because Christ died upon the cross to redeem the sins of all mankind; and not because of any man's belief. Moreover, a man may believe in Christ Jesus as he believes in Julius Cæsar, and to as little purpose. Diligence, earnestness, humility, christian love, are quick with the very vitality of saving faith; but when men are only told to believe, and feel that they do believe already, they are too apt to be lulled into a false security. We are the more anxious to expose this antinomian error plainly, because we think it prevails to a great extent among some of the busiest and most popular talkers in DUBLIN, where it is so much our duty and desire to aid the spread of pure episcopalian protestantism, the true religion established amongst us.

GEOLOGICAL SOCIETY.

(FROM THE "ANNALS OF PHILOSOPHY.")

June 4 and 18.—A paper was read, entitled "On the Geological Relations of the South of Ireland," by Thomas Weaver, Esq. F. G. S. F. R. S. M. R. I. A. &c.

This Memoir gives an outline of the mineral constitution of a large tract in the south of Ireland, comprising the counties of Cork, Kerry, and Clare, with part of those of Galway, Tipperary, and Waterford; and thus connecting this portion of the island with the eastern part of it, formerly described by the author.

This hilly and diversified region is chiefly composed of ridges, having generally a direction from east to west, and attaining their greatest elevation in the mountains of Kerry, where Gurrane Tual, one of Magillycuddy's Reeks, near Killarney, (the highest land in Ireland,) is 3410 feet above the sea.

The rocks in this elevated country are chiefly of the transition class: they decline gradually towards the north, and finally pass under the old red sandstone and carboniferous limestone of the midland counties.

1. *Transition Series.*

In Kerry there is a persistent series of transition rocks, having a general direction from east to west, and dipping to the north and south with vertical beds in the axes of the ridges: the strata as they diminish in inclination on each side, form a succession of troughs. The principal rock-masses are composed of grauwacke, slate, and limestone; but the general series is distinguished by the author, into simple and compound rocks; the simple being clay-slate, quartz-rock, hornstone, lydian-stone, and limestone. The compound sandstone and conglomerates with bases of clay-slate, quartz, and sandstone; grauwacke, and grauwacke-slate; sandstone, and sandstone-slate; greenstone; and hornstone-porphyry. Roofing-slate, though comparatively rare, is found of an excellent quality in the island of Valentia.

Organic remains occur more frequently in the limestone of this series than in the slate and grauwacke. In Kenmare, these remains consist of a few bivalves, and some crinoidal remains; and these also are most numerous in the Muckruss and Killarney limestones. At the foot of the Slieve-meesh range this limestone includes Asaphus caudatus, Calymene macrophthalma, and perhaps a third crustaceous animal, with Orthoceratites, Ellipsolites ovatus, an Ammonite, Euomphalites, Turbinites, Neritites, Melanites, and several species of Terebratula, Spirifer, and Producta.—Other bivalves in this locality are referrible to species figured by Schlotheim, as from transition rocks on the continent.

Near Smerwick harbour, similar organic remains are abundant in slate, and fine-grained grauwacke, together with Hysterolites and many genera of polyparia; the whole resembling both in mineral and zoological characters the rocks of Tortworth in Gloucestershire, formerly described by the author, as well as those of the Taunus in Nassau, more recently described by Sir Alexander Crichton. Again, the same fossils are found in the limestone of Cork, associated with impressions of vertebræ of fishes; and analogous remains are to be met with also in a portion of the slate of that neighbourhood.

Transition Coal.—All the coal of the province of Munster, except that of the county of Clare, is referrible to one of the earliest periods at which that mineral has been produced; the true coal overlying the mountain limestone being found in that county alone. At Knockasartnet, near Killarney, and on the north of Tralee, thin anthracitic beds, inclined at various angles from 70 degrees to verticality, are included in grauwacke and slate. In the county of Cork this old coal is more extensively developed, particularly near Kanturk, extending from the north of the Blackwater to the Allow. The gorges of the latter river, and various other neighbouring defiles, expose clay-slate, grauwacke, shale, and sandstone, in nearly vertical beds, directed from west to east. This transition tract extends to the river Shannon on the north-west. As the systems range from west to east, in a series of parallel, acutely angled troughs, the beds have great diversity of inclination, dipping rapidly either to north or south, and bending to horizontality between the ridges. This coal or anthracite is raised in sufficient quantities for the purpose of burning the limestone of the adjoining districts; and the most considerable collieries, those of Dromagh, have yielded 25,000 tons per annum, at from 10*s.* to 15*s.* per ton.

The coal, and accompanying pyritiferous strata are abundantly charged with the remains or impressions of plants, belonging chiefly to Equiseta and Calamites, with some indications of Fucoides. Beds of transition coal occur also in the county of Limerick, on the left bank of the Shannon, north of Abbeyfeale, and at Longhill; and are seen, though in very small quantity, on the right bank of the river at Labbasheada. Several other places where coal strata occur, are mentioned by the author.

The transition rocks of Kerry and Limerick are prolonged into Cork and Waterford, preserving with certain modifications an analogous character and composition. The carboniferous limestone reposing upon this tract, on the north, is usually unconformable to it, but is conformable to the old red sandstone, wherever that rock intervenes.—In this system of strata, organic remains, such as polyparia, bivalves, Trilobites, &c. occur near the Bonmahon river; the horizontal planes which they occupy crossing the vertical cleavage of the slaty grauwacke nearly at right angles. The series rests upon, and passes into clay-slate, and is capped by old red sandstone and strata of the carboniferous order. Metalliferous veins with indications of copper and lead are seen in the cliffs of the transition series, east and west of the Bonmahon river.

II. *Metalliferous relations in Kerry and Cork.*

The author having succeeded in restoring the copper mines at Ross Island, on the Lake of Killarney, and in effectually draining off the water, was enabled to prove that the ore did not constitute a metalliferous bed, or any real vein, but was contemporaneous with the rock in which it is irregularly distributed in the form of ribs, branches, strings, &c. analogous to those of calcareous spar, in limestone. The rocks at Ross Island consist of blue limestone, and beneath it of siliceous limestone, but the ore is confined exclusively to the former; and various trials have proved the non-existence of any vein communicating with the metalliferous deposit.—Copper ore is similarly distributed at Crow Island; but at the Muckruss mines the ore was obtained chiefly from a metalliferous bed. The author has ascertained exactly the extent of the limestone bearing lead in Kenmare, where most of the unsuccessful trials in search of ore have shown that the mineral deposits are discontinuous, and nearly parallel to the range and dip of the beds; and in Castlemaine mine, where lead ore was formerly worked in a mass of calcareous spar and quartz, it thinned out into an unproductive pipe. Near Tralee and Ardfort, and on the left bank of the Shannon, lead ore has been unprofitably worked in limestone, sandstone and slate.

In the county of Cork, the copper mines are those of Allihies, Audley, and Ballydehol; and those producing lead are situated at Doneen and Rinabelly. The mine at Allihies is one of the richest mines in Ireland; it was discovered only in 1812, and has already yielded more than 2000 tons of copper ore per annum. The ore occurs in a large quartz-vein, which generally intersects the slaty rocks of the country from north to south, but in some places runs parallel to the stratification. It is remarked that all this portion of the county of Cork indicates a very general diffusion of cupreous particles, so much so, that in the year 1812 there existed a cupriferous peat-bog on the east-side of Glandore harbour, forty or fifty tons of the dried peat producing when burnt, one ton of ashes, containing from ten to fifteen per cent of copper. The lead mines of Doneen and Rinabelly are in slate.

In concluding a long series of observations on the mines of the tracts described in this paper, the author remarks that the diffusion of metallic substances throughout the mass of rocks is far from being an uncommon occurrence—the metalliferous matter appearing in isolated particles, and in strings, veins or filaments, more or less connected with each other, but not continuous or persistent, and therefore of contemporaneous origin with the rock itself.

III. *Carboniferous series of Clare.*

The clay-slate formation in this county is bordered by a belt of old red sandstone, to which succeed, in ascending order and conformable position, the mountain limestone and coal measures, both of which occupy flat and undulating hills, and the strata usually dip from the east of north to the west of south; but seldom at a greater angle than 5°. The best sections are seen in the cliffs of the west coast, where shale, sandstone and sandy-flag-stone overlie limestone. Coal, however, is there of very rare occurrence, and when disclosed is of very indifferent quality; and the author infers, that the lower part of the series in the county of Clare is comparatively poor in this mineral; he, however, suggests that the best chances of discovering valuable seams must lie in the elevated regions of Mount Cullun; where if coal be found, the beds being nearly horizontal, it might be worked with advantage.

The Memoir concludes with some observations on the distribution of diluvial matter in the South of Ireland.

1. Boulders, gravel and sand, derived from the transition series are lodged along the borders and sides of the mountains in Kerry.

2. In a small district of Limerick and Tipperary, situated between the Gaultees and Slieve-na-muck, the rolled debris consist not only of portions of the contiguous rocks, but contain also porphyry, which is not to be found *in situ* near the vicinity of Pallis Hill.

3. In the peninsula of Renville, near Galway, the surface of the carboniferous limestone is strewed over with numerous boulders of red and gray granite, syenite, greenstone, and sandstone, which must apparently have been conveyed from the opposite side of the bay of Galway.

GEOLOGICAL SOCIETY OF FRANCE.

We perceive that a Geological Society has just been established in Paris. Cordier is president; the vice-presidents are Brongniart, Blainville, Prevot and Brochant. A hundred members have been already enrolled. The object is to aid the advancement of Geology in general, and in particular to make known the geology of France, and its relations with the arts and agriculture. Each member is to pay twenty francs at entrance, and thirty francs annually. The society is to meet every fortnight, and a general view of the geological labours of other societies during the preceding fortnight, is to be taken at each meeting. A special committee is entrusted with the charge of publishing all interesting memoirs and maps, which will be given to the public at once, and subsequently bound up into the volumes of Transactions, being paged with a running number for that purpose.

ECCLESIASTICAL INTELLIGENCE.

At an ordination held by the Lord Bishop of Waterford in the cathedral of that city, the following gentlemen were admitted to the order of Deacon: Messrs. John William Bourke, for the Diocese of Ossory; Charles Henry Archdall, for the diocese of Waterford; and Mr. Hudson, for the diocese of Lismore.

On Sunday, the 8th instant, an ordination was held in the parish church of Fahan, by the Hon. and Right Rev. the Lord Bishop of Derry, when the following gentlemen were admitted into Holy Orders:—For the diocese of Derry—The Rev. Michael Smyth, and the Rev. Charles Hamilton, Priests; Robert Delap, A. B., for the curacy of Donoughmore; Richard Graham, A.B. for the curacy of Carndonagh; and Thomas Neville Burgoyne, for a curacy in Dogaghedy. For the diocese of Raphoe—The Rev. J. Kincaid, and the Rev. John Beally, priests; Charles Miller, deacon, for a curacy in Taughboyne. For the diocese of Armagh—The Rev. Josiah Francis Flavell, priest. For the diocese of Killala—The Rev. James Mehan, priest.